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THE PLANT DISEASE SITUATION

A radio talk delivered by R. J. Haskell, Federal Extension Service, in the Department of Agriculture period of the National Farm and Home Hour, and broadcast by a network of 49 associate NBC stations, Friday, April 21, 1933.

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I certainly am glad to be with you this afternoon and to tell you how a plant pathologist looks upon the present agricultural situation.

On my desk I have a copy of the agricultural outlook recommendations for this year, one page of which is headed, "Economic Adjustments to Meet Agricultural Conditions in 1933." On this page there are ten different suggestions of adjustments that might be made to advantage. In the few minutes that I have I would like to single out those adjustments that have to do with the subject of plant disease control and comment on them.

The first thing I notice is about prices. It says, "To obtain better prices (and all of us are interested in this) 'To obtain better prices produce high-quality products.'" One way to do this is to prevent diseases that affect the finish, grade and quality of our products and plants. For instance, grow apples that are free from scab, spots, and other blemishes. Growers who spray for these troubles often get from 95 to 100 per cent of the clean, marketable fruit, whereas those who do not spray frequently get no marketable apples at all. Grow potatoes that are free from scab. Last month I saw potatoes being graded and packed in one of our southern States. Twelve per cent of those otherwise fine, red, Bliss Triumph potatoes were so scabby and rough that they had to be thrown out. And so we say, grow crops of a high-quality, at least high enough to give you the greatest returns.

Now turning to the adjustments again. The next item says, "To lower costs of production crop only better lands." That means not only land that is rich, fertile, well-drained and supplied with adequate water, but also land that is not contaminated with disease-producing germs. There are thousands of acres of cotton land in the South that are so badly infested with the cotton wilt fungus, or with the root knot nematode, that they are not fit to grow cotton. There are certain wheat areas in the far West where the soil is so generally infested with smut that it is impossible to make any money out of wheat on those lands. Many of our important crops such as the cereals, potatoes, cabbage, and others, are subject to diseases that are harbored in the soil, sometimes for many years, and that lowers the value of the land for those particular crops.

Now looking at the adjustments again, we see "Lower costs of production by using good seed of recommended varieties." Good seed is so worth while, and so important, that if possible I would like to take the entire time talking about it. So many different diseases are carried on or inside the seed; so many of our common diseases of vegetable and ornamental plants are spread or get started in that way. If possible seed should be obtained from areas and from fields that are free from disease. The wide use of certified seed potatoes and sweetpotato plants, is due to the demand for disease-free seed and plants. Usually you can't tell from looking at the outside of a seed whether or not there are disease germs on it, or
(over)

in it. So various means of seed treatment, using chemicals, both as liquids and dusts, and also using hot water at various temperatures, have been devised to kill these germs.

The last adjustment that I notice seems to be a summary of all that I have been saying, namely, "Lower costs of production by controlling diseases and insects" That is, lower your costs by controlling all diseases up to the point of getting the maximum return for the money invested.

Now let me summarize briefly the adjustments that you can make along this particular line to help you meet the situation this year. First, to obtain better prices, produce high-quality products by preventing disease blemishes and defects that lower grades, and prices. Second, to lower the cost of production, crop only the land that is reasonably free from disease-organisms, and use good, disease-free seed of recommended varieties and treat it if necessary.

Your local county agricultural agent, or the plant pathologists at your agricultural college or in the United States Department of Agriculture want to help you with your plant disease problems. Why not call on them?